

HOYA NEW



A photo taken in 1994 in Central Sulawesi, Indonesia. Plant on an abandoned Cocoa tree along the road south of Tentena, a mountainous region. A cf. *Hoya imbricata* species. The leaf coloration here is entirely different from other *H. imbricata* sp.

Oh There it is !

A pdf publication devoted to the Genus
Hoya ISSN 2329-7336

Volume 4 Issue 3

April 2015

Editor:
Dale Kloppenburg

Contents

When a species is collected from the wild, I feel it is wise to identify it, propagate it and name it. In this way it will eventually get it into commercial channels, be distributed to all those interested in this genus and thus be preserved. If in the future the species is lost through natural causes or forest destruction it will still be here on earth in your collection.

The following new species are presented in PDF format with ISSN number.

1. **Hoya lambioae** Kloppenburg, Guevarra, Cajano, & Carandang
2. **Hoya palawanensis** Kloppenburg
3. **Hoya meliflua subsp. fraterna** T. Green (neotype)

Hoya lambioae Kloppenburg, Guevarra, Cajano, & Carandang ISSN 2329-7336

Hoya lambioae Kloppenburg, Guevarra, Cajano, & Carandang sp. nova. Holotypus 71847 (CAHUP) hic designatus. Frutex scandens, inflorescentiis exceptis glabra, ramis teretibus, pedicellis 1.6 cm longus et 0.05 cm diametro; calyces segmentis sub-linearis glabris apice acutis 0.14 cm longis et 0.10 cm latis; corolla usque infra medium pentagonus-fida, reflexa, extus glabra, intus papalatus, 1.10 cm diametro complanatus, lobis late ovatis, acutis ca. 0.32 cm longis; corollae foliolis horizontalibus, apice acutis, dorso anguste ellipticus, concavis, angulo interiore dentatis, subtus canaliculatas. Similis *Hoya linapauliana* sed hic corollae exterior lobus acutis et corolla reflexis non rotata, intus papillosus non puberulus, differt.

This new species is most similar to *Hoya benvergarai* Kloppenburg & Siar with plinerved foliage having the corona horizontal, with concave coronal lobes that reach or exceed the corolla sinuses with the inner coronal lobe dentate and outer lobe apex acute, however this new species has a smaller corolla, and corona, and pollinaria, among other differences.

This new hoyia species is named for the collector Ms. Ivy Amor F. Lambio who is an Assistant Professor at the Institute of Biological Sciences UP, Los Banos, Laguna Philippines. Her field of specialization is on plant ecology and conservation. She collected this new species at the Mudspring's, Mt. Makiling, UP Los Baños, Laguna, Philippines in May 2011.

Details, micro-photos etc follow:



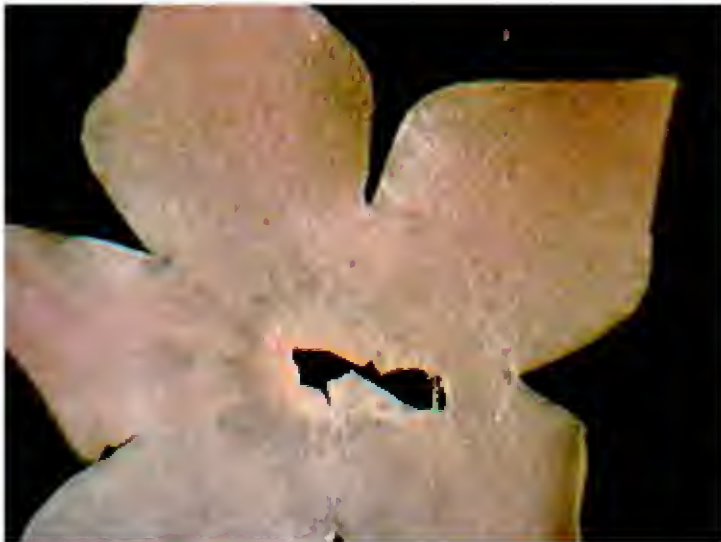
Pedicel: section enlarged ca. 50x. 1.6 cm long and 0.05 cm in diameter, glabrous terete, strict.



Calyx and ovaries: right above, side view enlarged ca, 23x, ovaries are glabrous narrowly dome shaped, 0.11 cm tall and base pair 0.08 cm wide. Calyx lobes are sub-linear, glabrous in and out, centrally thickened apex acute, overlap slightly at the base, ligules present at the base on dorsal surface, 0.14 cm long and 0.10 cm wide at the base, they meet the corolla sinuses.



Calyx and corolla outside surface enlarged ca. 23x, this shows the bulbous base to the pedicel-calyx base, surface glabrous but granulate. Also the sepal apices reaching or slightly exceeding the corolla sinuses.



Corolla: ventral (outside) surface enlarged ca.12x, this surface is glabrous finely granulate.

| | |
|----------------|---------|
| Sinus – sinus | 0.25 cm |
| Sinus – center | 0.23 cm |
| Sinus – apex | 0.39 cm |
| Apex – center | 0.55 cm |
| Widest | 0.32 cm |



Corolla dorsal (inside) surface is finely papillose less so under the coronal area, the corolla is reflexed, and cut a little more than half way, lobes broadest about the center area.



Corona: ventral (bottom view) surface, lobes are channeled to near the central thin walled column which is smooth at the sides and base, 0.04 cm long; anther wing sides slightly thickened and apex protrudes slightly beyond the coronal sinuses and ends are rounded, all areas glabrous, lobe surfaces diagonally sulcate, apices sub-acute. The channel edges roll outward to form a V structure inward.



Corona: dorsal surface enlarged ca. 13x, the scales are horizontal, dorsal concave with a keel from inner apex to near outer apex surface longitudinally sulcate. Inner lobe short dentate with end rounded and not reaching the center so anthers raised slightly and exposed. Apices exceed the corolla sinuses.

| | |
|---------------|---------|
| Apex – apex | 0.27 cm |
| Apex – center | 0.31 cm |
| Widest | 0.15 cm |
| Ret. – ret. | 0.09 cm |
| Ret. – center | 0.08 cm |
| Aw. – aw. | 0.15 cm |
| Aw. – center | 0.15 cm |



Corona: dorsal greatly enlarged to show that the retinacula and anther wings are visible from above and the anther wing apices extend from the sinuses; that the coronal lobes are sulcate with narrow raised rounded edges. Anthers exposed and slightly raised in the flower center.



Coronal scale side view enlarged ca. 27x. Scale is horizontal, thin, concave above, edges rounded, anthers slightly raised.



Pollinarium
enlarged ca. 220x.

Pollinium

length 0.37 mm
widest 0.15 mm

Retinaculum

length 0.10 mm
shoulder 0.10 mm
waist 0.04 mm
hip 0.07 mm
ext. 0.05 mm

Translator

length 0.07 mm
width 0.02 mm

Caudicle

bulb diam. 0.05 mm

Translator type:

ls/o or d/o

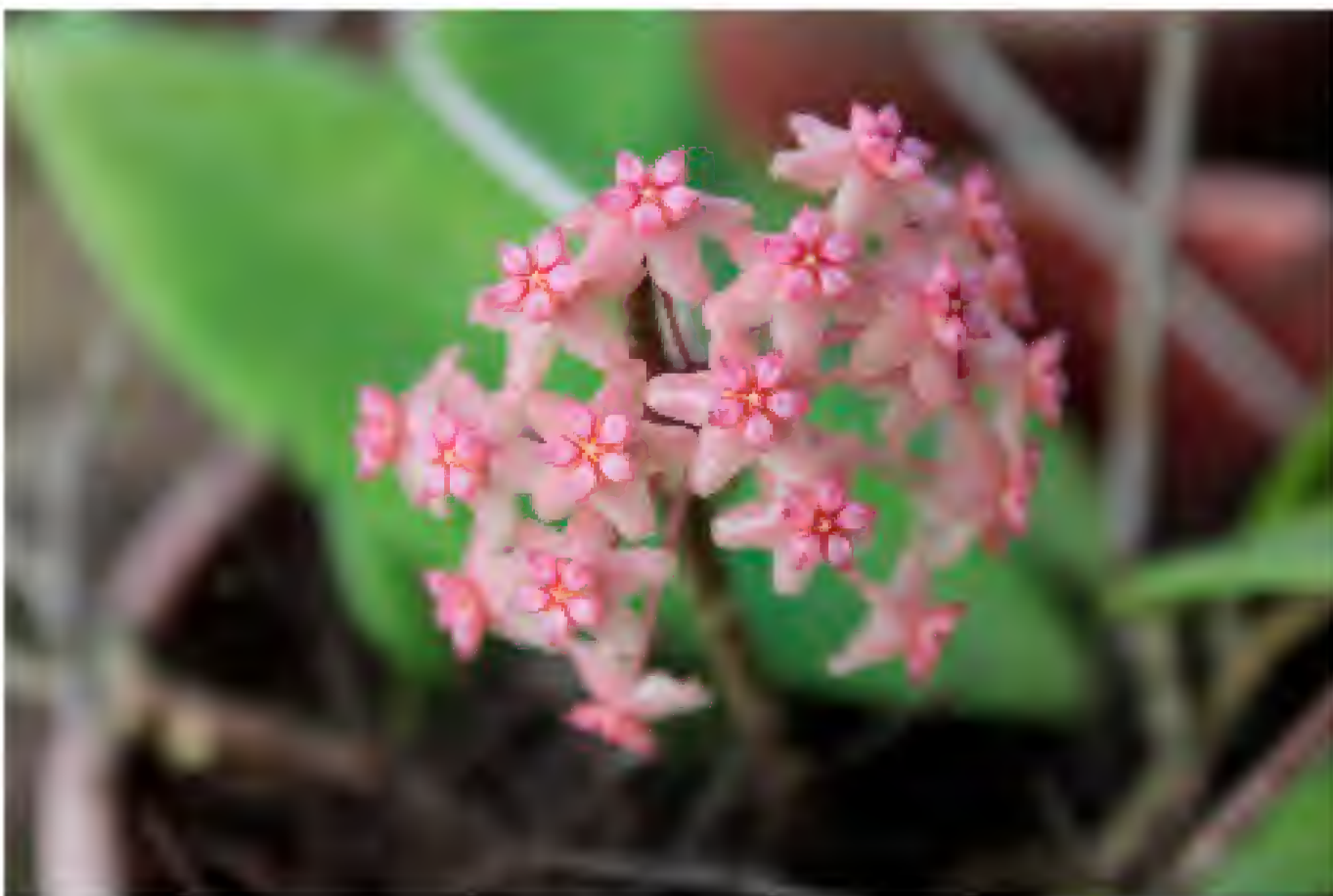
2012-3-093

| Leaf sample | Length (cm) | Width (cm) | Thickness (cm) |
|--------------|-----------------|----------------|--------------------|
| 1 | 7.5 | 3.1 | 0.135 |
| 2 | 7.1 | 3.1 | 0.145 |
| 3 | 7.1 | 3 | 0.120 |
| 4 | 8.3 | 3.5 | 0.160 |
| 5 | 5.6 | 3.5 | 0.155 |
| 6 | 20.6 | 4.1 | 0.140 |
| 7 | 20.7 | 4.1 | 0.145 |
| 8 | 13 | 4.4 | 0.170 |
| 9 | 7.5 | 3.3 | 0.165 |
| 10 | 7.7 | 3.5 | 0.195 |
| Mean | 10.51 | 3.56 | 0.153 |
| Range | 5.6-20.7 | 3.0-4.4 | 0.120-0.195 |

Leaves: petiolate, opposite, glabrous, elliptic-ovate, base obtuse to sub cuneate, apex acute to acuminate, nerves triplinerved and anastomose; lighter then leaf surface. Leaf nerve angle ca. 20° to the midrib. Some leaves are convex on upper surface and edges slightly curved under.



Pictures send by Maria Luisa D. Guevara. Ca. 25 flowers in cluster,



References:

1. A Hoya Pollinaria File (4 Sections) by Dale Kloppenburg 2012 64 pp.
2. Translator Types in the Genus Hoya by Dale Kloppenburg 16 pp.
3. Philippine Hoya Species by Dale Kloppenburg. Eleventh edition 2009 Modified 22 August 2011, 704 pp.
4. Hoya Foliage by Dale Kloppenburg updated 2 December 2008, 172 pp.
5. **Hoya linapauliana** Kloppenburg, Siar, Mendoza, Guevarra & Carandang. (Yet to be published)

Contributors:

Ms. Mary Ann Cajano is the Herbarium Associate at (UPLB) University of the Philippines, Los Banos, Laguna, Philippines.

Ms. Jennelyn M. Carandang, University Researcher Associate, Crop Science Cluster, Institute of Plant Breeding, College of Agriculture, University of the Philippines, Los Banos (UPLB), Laguna, Philippines.

Maria Luisa D. Guevarra, University Researcher, Fruit and Ornamental Crops Section, Crop Science Cluster, Institute of Plant Breeding, College of Agriculture, University of the Philippines, Los Banos, Laguna, Philippines.

Dale Kloppenburg retired: Lt. USNR, Plant Breeder and Research Agronomist, now taxonomist of Genus Hoya.

Collection Number Hoya sp. 2011-3-093

Hoya lambioae Kloppenburg, Guevarra & Carandang
Holotype sheet.



Hoya palawanensis Kloppenburg

ISSN 2329-7336

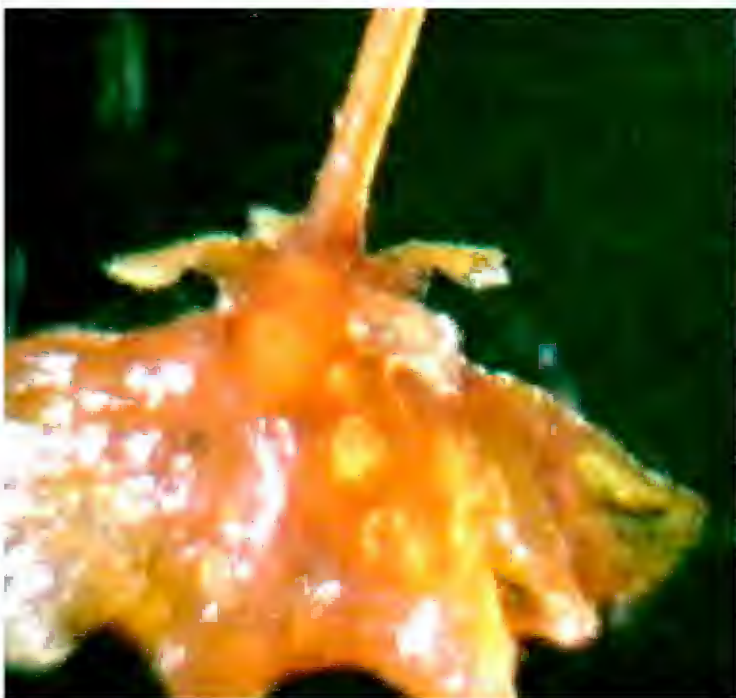
Hoya palawanensis Kloppenburg, holotypus CAHUP #5297 hic designatus, foliis ellipticus 8.1-12.9 cm x 3.4-4.2 cm, glabris, apice acuminatus. Similis *Hoya benvergarai* Kloppenburg & Siar 2008 sed pediciliis 1.8 cm longus contraste 3.0 cm et corolla diametro complanatus brevior 1.10 cm contraste 1.56 cm, differt, aliter similes.

The-is species is most similar to *Hoya benvergarai* Kloppenburg & Siar 2008 but among other differences the pedicels are shorter 1.8 cm versus 3.0 cm and the corolla flattened is also smaller 1.10 cm vs, 1.56 cm, otherwise there are similar. It should be mentioned that here the anther wing apices are not squared off.

Details follow:



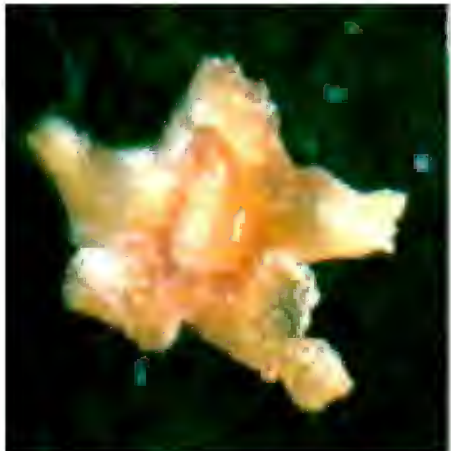
Pedicel enlarged about 16x. Curved, terete, glabrous 1.8 cm long, 0.04 cm in diameter.



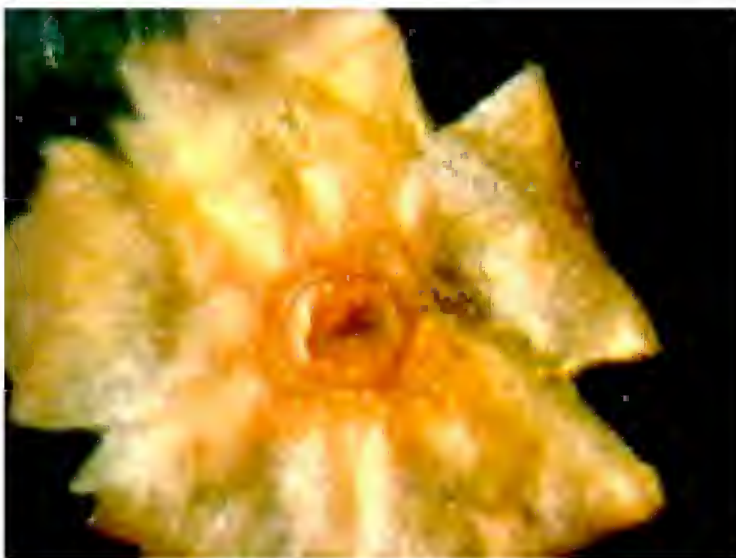
Outside of flower enlarged about 8x. Sepals do not reach the corolla sinuses, here dried and flared out from corolla surface which is glabrous.



Pedicel calyx and ovaries side view enlarged about 8x. Ovaries are narrow domed shape, 0.11 cm tall and 0.08 cm wide at abase pair, glabrous.



Top view of the calyx and ovaries enlarged about 8x. Sepals are glabrous inside and out, 0.13 cm long and 0.10 cm at the widest, overlap at the base about 1/4. There are faint ligules, sepal apex narrowly rounded



Corolla outer surface, glabrous, cut more than $\frac{1}{2}$ way, central collar thickened and convex.

| | |
|----------------|---------|
| Sinus – sinus | 0.29 cm |
| Sinus – apex | 0.37 cm |
| Sinus – center | 0.22 cm |
| Apex – center | 0.55 cm |
| Widest | 0.33 cm |



Inside surface of the corolla enlarged about 8x. This surface is finely ppuberulous, lobe apex is acute and broadest in the middle.

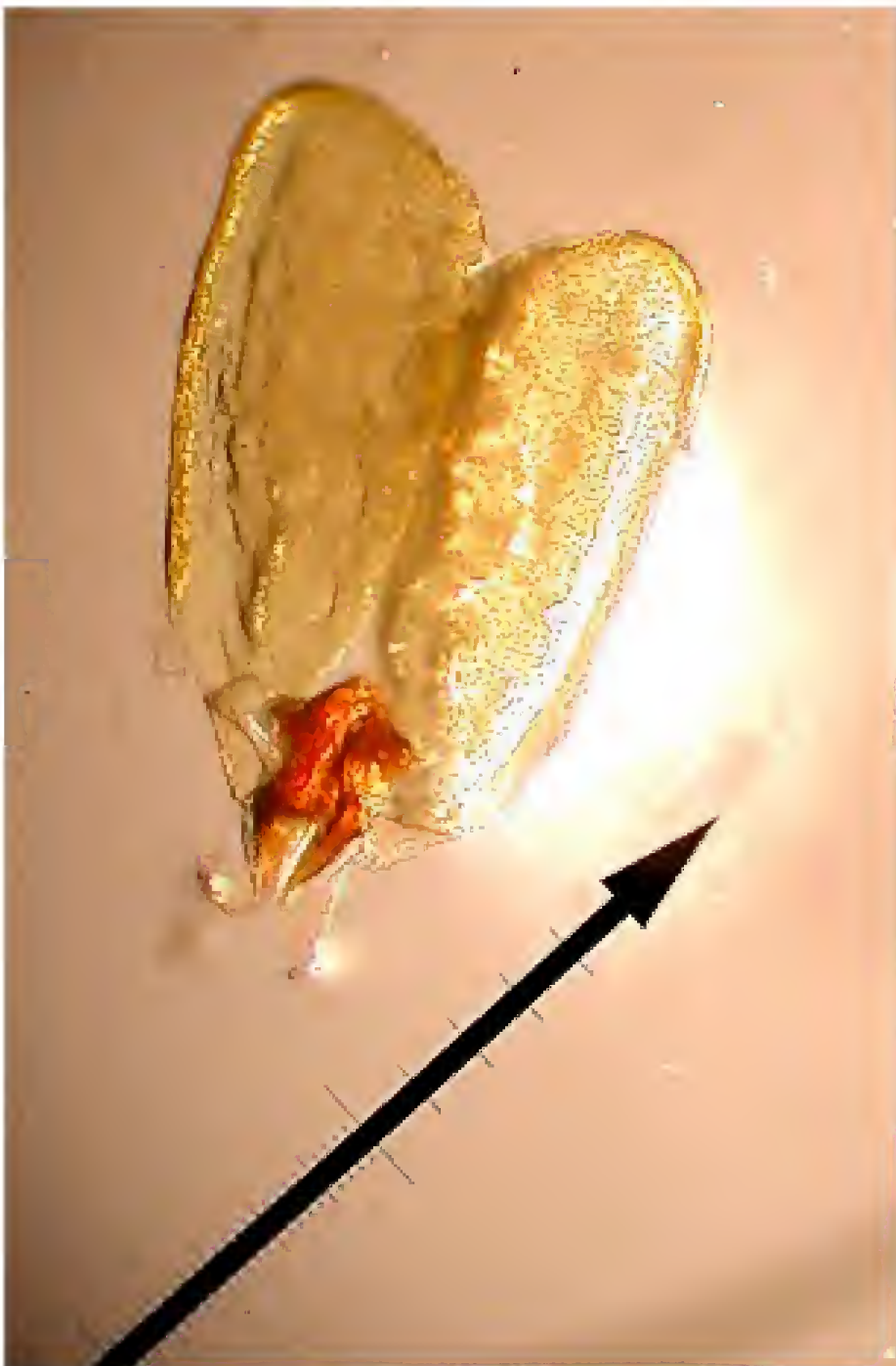


Inside view of the flower enlarged about 8x. Coronal outer lobe exceeds the corolla sinus by a considerable amount, is narrowly rounded an elliptic shape, dorsal a little concave with a raised keep from apex to apex.. Inner lobe is blunt dentate and does not reach the center. Anther wings at apex are rounded and protrude a little.



Lower surface of the corona, glabrous, channeled all the way to the central column, anther wings protruding, lower outer edges of scales are thin and sharp edged.

| | |
|---------------|---------|
| Apex – apex | 0.28 cm |
| Apex – center | 0.33 cm |
| Widest | 0.13 cm |
| Ret – ret. | 0.09 cm |
| Ret – center | 0.08 cm |
| Aw. – aw. | 0.15 cm |
| Aw. – center | 0.15 cm |



Pollinarium enlarged about 155x.

Pollinium

| | |
|--------|---------|
| length | 0.47 mm |
| widest | 0.20 mm |

Retinaculum

| | |
|----------|---------|
| length | 0.12 mm |
| shoulder | 0.11 mm |
| waist | 0.06 mm |
| hip | 0.08 mm |
| ext. | 0.06 mm |

Translators

| | |
|--------|---------|
| length | 0.12 mm |
| depth | 0.01 mm |

Caudicle

| | |
|------------|---------|
| bulb diam. | 0.08 mm |
|------------|---------|

Ret. Pol ratio 1:4.3

Translator/caudicle type: d/o

Pollinia inner end type: RT

Internodes: 6.5-13.4 cm long, some adventitious rooting. Nodes only slightly enlarged. Glabrous.

Leaf blades: opposite, petiolate, elliptic acuminate, 8.1 – 12.9 cm long x 3.3 – 4.2 at the widest, both sides glabrous, plinerved.

Petiole: 0.87 – 1.75 cm long twisted. Glabrous.

Rachis: 2.19 cm long.

The following sheet was labeled *Hoya macgregorii* Schlechter but it is not that species. Outer lobes of corona on that species are not “breviter excises” briefly excised. Also the corolla is much different.

Reduced copy of the type sheet CAHUP #5297
Misidentified as *Hoya mcgregorii* Schlechter



DESIGNATION OF A NEOTYPE FOR A SPECIES OF HOYA FROM THE PHILIPPINES AND INDONESIA – HOYA MELIFLUA SUBSPECIES FRATERNA T. GREEN

Ted Green, Green: Plant Research, P O Box 597, Kaaawa, Hawaii 96730

ISSN 2329-7336

Key words: Hoya, *Hoya meliflua* subsp. *fraterna*, *Hoya fraterna*, Philippines, designation and description..

SUMMARY The Holotype of *Hoya meliflua* subsp. *fraterna* T. Green was based on a drawing of a hoya in Curtis's Botanical Magazine, Tab.4684, December 1, 1852, mislabeled as *Hoya fraterna*.. A detailed description was not provided but research has shown that the drawing does not match the description of Blume. This publication is to provide a description for the Neotype.

HOYA MELIFLUA SUBSP. FRATERNA T. Green, Apocynaceae – Asclepiadoideae,

NEOTYPE: Ex hort., Garden of Ted Green, Kaaawa, Hawaii. Original collection in the Southern Philippines (DH 90-01-18) by Dexter Heuschkel. BISH 753153, is here designated as the Neotype. A high climbing, robust tropical vine with consistently larger leaves (7.5cm x 25 cm) vs. (2.5cm. x 13cm) than the Type of *Hoya meliflua* Merrill. The flower and all other respects are as the Type.

Leaf comparison: *Hoya meliflua* Merrill vs. *Hoya meliflua* ssp. *fraterna* T. Green.



Top figure: *Hoya meliflua*, bottom figure: *Hoya meliflua* ssp. *fraterna*.



Comparison of leaves of *Hoya meliflua* ssp. *fraterna* T. Green (top figure) and *Hoya fraterna* Blume, (bottom figure).



T. Green
4/10/15